

(19) World Intellectual Property
Organization
International Bureau



09 FEB 2005



(43) International Publication Date
19 February 2004 (19.02.2004)

PCT

(10) International Publication Number
WO 2004/014552 A1

(51) International Patent Classification⁷: B01J 31/24,
35/00, C07F 9/6564, C07C 67/38

(21) International Application Number:
PCT/GB2003/003419

(22) International Filing Date: 6 August 2003 (06.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0218613.8 10 August 2002 (10.08.2002) GB
0228018.8 30 November 2002 (30.11.2002) GB
0316159.3 10 July 2003 (10.07.2003) GB

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(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: A PHOSPHA-ADAMANTANE (S) CATALYTIC SYSTEM

(57) Abstract: A catalyst system capable of catalysing the carbonylation of an olefinally unsaturated compound is described. The catalyst system is obtainable by combining: (a) a metal of Group VIB or Group VIII B or a compound thereof; and (b) a bidentate phosphine of general formula (I) $\text{Ad}-(\text{CR}^4\text{R}^5\text{R}^6)_2\text{Q}^2\text{-A}-(\text{K}, \text{D})\text{Ar}(\text{E}, \text{Z})\text{-B-Q}^1(\text{Ad})_n(\text{CR}^1\text{R}^2\text{R}^3)_m$. Ad represents an optionally substituted adamantyl radical bonded to the phosphorous atom via any one of its tertiary carbon atoms. A method of production of the catalyst is also illustrated.

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